DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 5,

2008 has been entered.

2.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

3.   This is a Non-Final office action responsive to 5 May 2008. **Claims 1-29 and 33**

have been canceled. **Claims 30-32 and 34** are pending

4.   The applicant's arguments have been fully considered but are moot in view of

new grounds of rejection. Please see the 103(a) and 101 rejections below.

Specification

5.   The disclosure is objected to because of the following informalities: On page 1 of

the Specification under "Technical Field". The examiner notes that the word "insures" is

used in the context of "software that **insures** that patrol guards or offices monitor". The

examiner believes that the word "insures" should be spelled "ensures".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 30-32 and 34 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Under the statutory requirement of 35 U.S.C. § 101, a claimed invention must

produce a useful, concrete, and tangible result. For a claim to be useful, it must yield a

result that is specific, substantial, and credible (MPEP § 2107). A concrete result is one

that is substantially repeatable, i.e., it produces substantially the same result over and

over again (*In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)*).

In order to be tangible, a claimed invention must set forth a practical application that

generates a real-world result, i.e., the claim must be more than a mere abstraction

(*Benson, 409 U.S. at 71-72, 175 USPQ at 676-77*). Additionally, a claim may not

preempt abstract ideas, laws of nature or natural phenomena nor may a claim preempt

every "substantial practical application" of an abstract idea, law of nature or natural

phenomena because it would in practical effect be a patent on the judicial exceptions

themselves (*Gottschalk v. Benson, 409 U.S. 63, 71-72 (1972)*). (Please refer to the

"Interim Guidelines for Examination of Patent Applications for Patent Subject Matter

Eligibility" for further explanation of the statutory requirement of 35 U.S.C. § 101.)

Regarding **Claim 30**, the claim provides a concrete and tangible result, however

the claims do not provide a useful result. The claims cite the providing rules for

performing a guard patrol. However, there is no recitation that the method actually

provides anything useful (i.e. it appears to be a set of abstract steps).

Additionally, although a method (i.e. a process) is claimed, there is no positive

recitation that the method steps are tied to another statutory class (such as a particular

apparatus). The result is that the claims appear to be a set of mental steps (i.e. an

abstract idea) and is thus not statutory under 35 USC 101.

Claims 31, 32 and 34 depend on Claim 30 and are therefore not statutory at

least for the reasons given above for **Claim 30**.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 30-32 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable

Wren, Anthony; Wren, David O; "A Genetic Algorithm for Public Transport Driver

Scheduling", (C) 1994 Elsevier Science LTD, Computers Ops Res. Vol. 22, No. 1,

pp.101-110 (hereinafter **Wren**) in view of Juan A. **Mesa**, and T. Brian Boffey;

"A review of extensive facility location in networks", European Journal of Operational

Research, Volume 95, Issue 3, 20 December 1996, Pages 592-603 (hereinafter **Mesa**).

Regarding **Claim 30**, Wren teaches an application of the traveling salesman

problem (known in the art as TSP) where a number of locations must be visited

according to a selection that is random as per:

d) permitting said locations to be visited in a random order.

Page 106 para 3-6, here Wren discusses the application of a random ordering of

the visits to the locations (here the application is for scheduling bus drivers to make

stops).

Further in the scheduling process, Wren defines rules for how the schedule (i.e.

the stops) are to be scheduled as per:

a) assigning an identifier to each of said rules to be defined;

page 103 Table 1, the stops the bus driver must make according to the bus

schedule for that day identifies the rules for how the schedule must be constructred.

b) assigning a first time period to each of said rules, said first time period

determining when said rule is valid;

page 102 para 3, the rules have time periods associated with them, according to

the regulations and policies for how drivers may be scheduled and according to how the

bus company services the route.

c) setting the number of required checkpoint visits for each location of

said bus schedule, said checkpoint visits to occur during at least one time period

within said first time period

page 103 graphic at bottom, the relief points are checkpoint visits for each

location within the bus schedule which must be visited during the time period of the daily

schedule.

Wren does not teach the application of the TSP solution to solving for a random

association of guard checkpoints, however the idea of application of the Covering Tour

or Travelling Salesman approach in Operations Research to address guard tours is

taught by Mesa.

Mesa provides an overview of the types of problems that may be solved by

considering a network with a group of points that must be serviced (see page 595

column 2 bottom – category II problems have fixed endpoints).

Mesa further discusses that these types of problems involved security or guard

tours (see page 601 column 1 para 1 under "4. Discussion" – here Mesa notes that

these types of network problems involve applications of security vans (i.e. guard patrols)

in terms of network routing.

One of ordinary skill in the art would apply the randomized heuristic to scheduling

individuals in a network as taught by Wren to include where the network is serviced by

guard patrols, as taught by Mesa, because it would provide a predictable result by the

application of a known OR technique using a heuristic to solve a network problem to

solve a guard tour problem.

Regarding **Claim 31**, Wren teaches:

wherein said first time period date range of said step(b) is selected from

the group consisting of the said rule being valid always, the said rule being valid

alter a specified time date, the said rule being valid until a specified time date and

the said rule being valid only between an assigned range of times dates.

Page 103 para 1, the rules determining when stops have to be made are valid

always.

Regarding **Claim 32** Wren teaches where the scheduling occurs on one shift

during a day (the graphic on page 103 bottom shows the time from 0614 am to 2319).

Wren does not teach where the scheduling is for specific days of each week. however, Official Notice is taken that it is old and well known in the art for scheduling requirements to be different given different days of the week. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wren's and Mesa's teaching to require a particular schedule for a particular day(s) of the week because it would have provided a predictable result in using the combined approach of Wren and Mesa to provide a different schedule for different days of the week based on the particular rule.

Regarding **Claim 34** Wren and Mesa teach a combined method for scheduling security patrols but not reporting an exception when a checkpoint is not patrolled according to rules. However, Official Notice is taken that this idea is old and well known in the art so that it is ensured that checkpoints are patrolled.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wren's and Mesa's teaching to report an exception when a checkpoint is not patrolled according to rules because it would have provided a predictable result ensuring that checkpoints are patrolled.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Nicholas J. Radcliffe and Patrick D. Surry; "Formal memetic algorithms", ©1004,

Evolutionary Computing, Volume 865/1994, pp.1-16.

Human performance on the traveling salesman problem

TC Ormerod - Perception & Psychophysics, 1996 - psych.lancs.ac.uk (This

article discloses the use of a random or stochastic approach to solving the traveling

salesman problem – This would be of interest to the applicant because rather than

approaching the problem mathematically, the authors analyze how well individuals solve

the problem of servicing a network by making their own random selections, i.e. as in

random selection of stations in a guard tour).

Scheduling of a Two-Machine Flowshop with Processing Time Linearly

Dependent on Job Waiting-Time

C. Sriskandarajah and S. K. Goyal

The Journal of the Operational Research Society, Vol. 40, No. 10 (Oct., 1989),

pp. 907-921

The Covering Tour Problem

Michel Gendreau, Gilbert Laporte and Frédéric Semet

Operations Research, Vol. 45, No. 4 (Jul. - Aug., 1997), pp. 568-576

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Beth Van Doren whose telephone number is 571-272-

6737. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Beth Van Doren can be reached on 571-272-6737. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

30 May 2008
JGS

/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623